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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,807	09/19/2003	Dan Adamson	MS320514.02/MSFTP1836USA	6636

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EXAMINER

JANAKIRAMAN, NITHYA

ART UNIT	PAPER NUMBER
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2123

NOTIFICATION DATE	DELIVERY MODE
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08/11/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/665,807	Applicant(s) ADAMSON ET AL.	
	Examiner NITHYA JANAKIRAMAN	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13, 14, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/22/2008 has been entered. Claims 1-11, 13-14, and 16-17 have been presented for examination.

Response to Arguments- 35 U.S.C 103

1. Applicant's arguments with respect to claims 1-11, 13-14, and 16-17 have been considered but are moot in view of the submitted amendments, necessitating the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3. Claim 10 recites a "system" comprising "means for modeling", "means for determining", "means for searching", etc. Giving the claim a broad, reasonable interpretation, the claim appears to be directed towards a software system with solely software components, and is therefore held as software *per se*.

4. Claim 11 recites a “machine readable medium” which is defined in paragraph 40 of Applicant's Specification to include "carrier wave signals". Signals are not considered statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-11, 13-14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 7,131,066 (“Birsan”) in view of “LawBot: A Multiagent Assistant for Legal Research” (“LawBot”), further in view of “Integrating the Document Object Model with Hyperlinks for Enhanced Topic Distillation and Information Extraction” (“Zelevnikov”).

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7. Birsan teaches the capability to processing a source file and the creation of a domain model. However, Birsan does not teach searching for keywords and related keywords. Birsan also does not teach the generation of a *set* of domain models.
8. LawBot teaches searching for a set of keywords entered by a user, as well as related search words (*page 35*).
9. Zeleznikov teaches the concept of a set of domain models (*page 68*).
10. Birsan, LawBot and Zeleznikov are all analogous art because they are all related to the field of ontology.
11. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the searching of keywords of LawBot with the processing of a source file of Birsan, motivated by the desire to “collect, filter, organize, and recommend” data to assist researchers, which is clearly desirable to one of ordinary skill in the art (*LawBot, page 32*). It also would have been obvious to combine the set of domain models of Zeleznikov with the generation of a domain model of Birsan, motivated by the desire to “specify domain knowledge” (*Zeleznikov, page 68*).
12. Regarding claims 1, 9, 10 and 11, Birsan, LawBot, and Zeleznikov teach:

A computer-implemented method to process a document (*Birsan: column 2, lines 48-50*), comprising:

analyzing features of a document for the presence of specific keywords, the keywords defined in a pre-set vocabulary list (*LawBot: page 35, left column*);

determining the presence of a keyword in the document that matches a keyword appearing in the pre-set vocabulary list (*LawBot: page 35, left column*);

searching the document for additional keywords related to the matching keyword to determine a

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context for the matching keyword (*LawBot: page 35, "Legally appropriate synonyms...LawBot uses its legal ontology to search by child as well when a user chooses baby as the search word"*);

generating a set of domain models (*Birsan: column 4, lines 61-64, "As described above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18)"*; *Zelevnikov: page 68, "specify a set of domain models"*) that represent the document, the domain models selected to represent the document are a function of the matching keyword and the additional related keywords (*LawBot: page 35, "Legally appropriate synonyms...LawBot uses its legal ontology to search by child as well when a user chooses baby as the search word"*);

storing the set of domain models along with other domain models representing other documents (*Birsan: column 13, line 35*);

structuring the stored domain models so as to be searchable by a querying system (*Birsan, column 5, line 46 to column 6, line 10, "targetslope directive"*); and

retrieving a collection of domain models in response to a search performed on the document for further analysis for specific properties (*Birsan: column 8, lines 37-44*).

13. Regarding claim 2, Birsan, LawBot, and Zelevnikov teach:

The method of claim 1, wherein a domain model relates to a simple type, or a complex type, and:

when a property for the domain model is of the simple type, populating the domain model with a value according to the document being represented (*Birsan: column 10, lines 16-27*); and

when a respective property type for the domain model is of the complex type, selectively adding another domain model as the value for that property, according to the document being represented (*Birsan: column 10, lines 16-27*).

14. Regarding claim 3, Birsan, LawBot, and Zelevnikov teach:

The method of claim 1, further comprising:

searching the set of domain models to determine a subset of features of the document that match search criteria (*Birsan: column 8, lines 37-44*).

15. Regarding claim 4, Birsan, LawBot, and Zelevnikov teach:

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The method of claim 2, comprising:

analyzing the set of domain models by determining values of properties from at least one model (*Birsan: column 2, lines 41 to column 3, line 41*).

16. Regarding claim 5, Birsan, LawBot, and Zeleznikov teach:

The method of claim 1, further comprising:

describing the document as instances of the respective models of the set (*Birsan: column 4, line 61 to column 5, line 6*).

17. Regarding claim 6, Birsan, LawBot, and Zeleznikov teach:

The method of claim 1, further comprising:

setting values in at least one of the models that represent supplemental information not in the document but is associated with the document (*Birsan: column 9, lines 8-11, "template file"*).

18. Regarding claim 7, Birsan, LawBot, and Zeleznikov teach:

The method of claim 2, comprising:

an automated process where a list of conditions must be met in the document to populate a property with a value or set of values (*Birsan: column 5, lines 7-45, "updatetargetscope directive"*).

19. Regarding claim 8, Birsan, LawBot, and Zeleznikov teach:

The method of claim 1, further comprising:

applying an algorithm to the respective properties of the retrieved collection of domain models to compute a data value relating to the collection (*Birsan: column 5, line 46 to column 6, line 10, "targetscope directive"*).

20. Regarding claim 13, Birsan, LawBot, and Zeleznikov teach:

The method of claim 1, comprising representing portions of the documents with respective instances of a subset of the generated domain models (*Birsan: column 4, lines 61-64, "As*

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described above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18)".

21. Regarding claim 14, Birsan, LawBot, and Zeleznikov teach:

The method of claim 13, wherein the respective instances are computation ready representations of the portions of the documents that can be understood by a plurality of computer applications (*Birsan: column 1, line 32 to column 2, line 37*).

22. Regarding claim 16, Birsan, LawBot, and Zeleznikov teach:

The method of claim 1, wherein a hierarchy of domain models are generated as a function of respective analyzed features (*Birsan: column 4, lines 61-64, "As described above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18)".*

23. Regarding claim 17, Birsan and Zeleznikov teach:

The method of claim 9, comprising searching across the domain models in connection with locating a collection of documents (*The use of plural documents constitutes a mere duplication of the parts. Birsan's teachings, which apply to one document, can be extended to many documents*").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NITHYA JANAKIRAMAN whose telephone number is (571)270-1003. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571)272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nithya Janakiraman/
Examiner, Art Unit 2123

/NJ/

/Paul L Rodriguez/

Supervisory Patent Examiner, Art Unit 2123